NOTES:
1. On approach end provide Index 536-002 (as shown) or other site specific treatment, see Roadway Plans. For treatment of trailing end see Roadway Plans.

2. Actual joint dimension and orientation vary. For Intermediate Deck Joints use the Modified Post Spacing at Intermediate Deck Joints Detail, Index 460-470, Sheet 2, as required.

3. Areas where existing structure has been removed shall match adjoining areas and shall be finished flat by grouting or grinding as required. Exposed existing reinforcing steel shall be burned off 1" below existing concrete and grouted over.

CROSS REFERENCES:
For Section A-A see Sheet 2.
For Traffic Railing Notes and Details see Index 460-470.
**NOTE: All bar dimensions are out to out.**

### BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
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<tbody>
<tr>
<td></td>
<td>4</td>
<td>3'-8&quot;</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>3'-7&quot;</td>
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<tr>
<td>L</td>
<td>4</td>
<td>8'-1&quot;</td>
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<tr>
<td>M</td>
<td>4</td>
<td>2'-8&quot;</td>
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### BAR BENDING DIAGRAMS

- **Dowel Bar 4D**
- **Dowel Bar 4L**
- **Bar 4M**

### BAR BENDING DIAGRAMS

- **Dowel Bar 4D**
- **Dowel Bar 4L**
- **Bar 4M**

NOTE: All bar dimensions are out to out.

**SECTION A-A**

**Typical Section thru Railing on Bridge Deck**

**SECTION B-B**

**Typical Section thru Railing along Approach Slab**

(Schemes 5 and 6 shown, Schemes 3 and 4 similar)

**VIEW C-C**

**Match Front Face of Thrie-Beam Guardrail along Bridge**

Offset Blocks as required

**Dowel Bars 4D (10" Embedment)**

**Dowel Bars 4D (10" Embedment)**

**Match shape of existing curb**

2 - 3/8" x 8" Adhesive-Bonded Anchors with Heavy Hex Nuts and Washers set in drilled holes (51/2" Max. Depth)

2 - 1 1/4" x 8" Adhesive-Bonded Anchors with Heavy Hex Nuts and Washers set in drilled holes (1'1/2" Max. Depth)

### CROSS REFERENCES:

For location of Section A-A see Sheets 1, 3 & 4.
For location of Section B-B see Sheet 4.
For location of View C-C see Sheet 3.
For application of Dim. A see Post Dimension Table on Index 460-470, Sheet 3.

**VIEW C-C**

**Match shape of existing curb**

2 - 3/8" x 8" Adhesive-Bonded Anchors with Heavy Hex Nuts and Washers set in drilled holes (51/2" Max. Depth)

2 - 1 1/4" x 8" Adhesive-Bonded Anchors with Heavy Hex Nuts and Washers set in drilled holes (1'1/2" or 51/2" Max. depth respectively)

### SHAPE OF EXISTING CURB

**Asphalt Overlay when present (Varies)**

**Slope:**

**Existing Curb Overhang**

3" Cover Min.

**Existing Wing Post (Type Varies)**

**Guardrail Post Assembly "A", "B" or "C" (see roadway plans)**

**Schemes 3 & 4 - Overhang Varies**

1'-2" x 10" x 1 1/8" Thick Neoprene Pad

See Detail "A"

"Shim with washers around Anchors as required to maintain tolerance."

**Offset may vary ±1" for Adhesive-Bonded Anchors to clear existing curb reinforcing and provide minimum edge clearance. Offset shall be consistent along length of bridge.**

**NOTE:**

For location of Section A-A see Sheets 1, 3 & 4.
For location of Section B-B see Sheet 4.
For location of View C-C see Sheet 3.
For application of Dim. A see Post Dimension Table on Index 460-470, Sheet 3.

**NOTE:**

**All bar dimensions are out to out.**
SCHEME 1 NOTES:
1. Provide Transition Block (as shown) or Curb if existing Approach Slab does not have a curb, see Roadway Plans. Shape and height of Transition Block or Curb shall match existing bridge curb. Transition Block may be omitted on trailing ends with no opposing traffic.
2. Field bend Dowel Bars 4L within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.

SCHEME 2 NOTES:
1. Provide Transition Block (as shown) or Curb if existing Approach Slab Curb does not extend to end of Approach Slab. Shape and height of Transition Block or Curb shall match existing bridge curb. Transition Block may be omitted on trailing ends with no opposing traffic.
2. Field bend or tilt Dowel Bars 4D and Bars 4M within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.
PARTIAL PLAN OF RAILING

Varies (6'-3" Max. spacing)

3'-10" Min. (Typ. along Approach Slab)

Post Spacing Scheme 3 as measured to 6" Post Bolts

Additional Posts required for Scheme 6 (shown dashed, number reqd. varies)

Asphalt Overlay when present (Varies)

Guardrail Post Assembly with Offset Block (Typ.)

Thrie-Beam Guardrail

PARTIAL ELEVATION OF INSIDE FACE OF RAILING

(Existing Wing Post and Traffic Railing not shown for clarity)

SCHEMES 3 AND 4

RAILING END TREATMENT FOR FLARED INTEGRAL CURBS

SCHMES 5 AND 6

RAILING END TREATMENT FOR PARALLEL INTEGRAL CURBS

1. Provide Transition Block (as shown) or Curb if existing Approach Slab Curb does not extend to end of Approach Slab. Shape and height of Transition Block or Curb shall match existing bridge curb. Transition Block may be omitted on trailing ends with no opposing traffic.

2. Field bend Dowel Bars 4L within Transition Block as required to maintain 2" top and side clearance and 3" bottom clearance.